Amendments to the Specification:

Please replace paragraph [0174] with the following rewritten paragraph:

[0174]   Here, the difference ci in the changes in the characteristics is the absolute value of the subtraction of the difference in the characteristics between a pixel ~~pi-2 and~~p_{i-2} and a pixel ~~pi-1~~ p_{i-1} from the difference in the characteristics between the pixel ~~pi-1~~ p_{i-1} and a pixel ~~pi~~p_i. When the characteristics of the taken pixels ~~pi~~p_i are characteristics ~~ai~~a_i, the difference bi in the characteristics between adjacent pixels is ~~bi = ai - ai - 1.~~ $b_i = a_i - a_{i-1}$. The difference ~~ei~~ c_i in the changes is ~~ei = |bi - bi - 1.|~~$c_i = |b_i - b_{i-1}|$. Also, the difference in the characteristics between the first group of pixels and the pixels ~~pi is~~ p_i is the absolute value of the subtraction of the typical characteristics of the first group of pixels from the characteristics of the ~~pixels pi.~~pixels p_i. When the typical characteristics of the first group of pixels are ~~a0~~a_0, the difference di in the characteristics between the pixels ~~pi~~p_i and the first group of pixels is ~~di = |a0 - ai|~~ $d_i = |a_0 - a_i|$.

Please replace paragraph [0175] with the following rewritten paragraph:

[0175]   In Fig. 19, when the pixels are sequentially searched, the pixels that meet the condition 1 ~~(bi < A)~~$(b_i < A)$ are the pixels p0 to p2. The pixels that meet the condition 2 ~~{(bi >= A) and (bi + >= A)}~~$\{(b_i >= A)$ and $(b_{i+1} >= A)\}$ and ~~(ei < B)~~$(c_i < B)$ and (continuous arrangement in a predetermined direction from the pixel that meets the condition 1) are the pixels p3 to p6. The pixels that meet the condition 3 ~~[{(bi >= A) and (bi + < A)} or (bi < A)] and (di >= C)~~ $[\{(b_i >= A)$ and $(b_i + < A)\}$ or $(b_i < A)]$ and $(d_i >= C)$ and (continuous arrangement in a predetermined direction from the pixel that meets the condition 2) are the pixels p7 and p8. Therefore, the pixels p0, p1, and p2 are detected as the first group of pixels. The pixels p3, p4, p5, and p6 are detected as the group of boundary pixels. The pixels p7 and p8 are detected as the second group of pixels.